

# Adjustable Armrest

## Abstract

An armrest for a seat having a seat bottom with a back member that may be selectively rotated between a substantially vertical position to a substantially horizontal position with respect to the seat. The armrest has a housing with first and second side walls that are retained on a pivot pin extending from the back member. A plate fixed to the first pivot pin that is located between the first and second walls has an arcuate peripheral surface with a first plurality of radial teeth thereon. A first lever has a first end attached to the first wall and a second end that extends therefrom to define a cantilevered beam. The cantilevered beam has a surface adjacent the second end with a second plurality of inwardly extending radial teeth that mesh with the first plurality of teeth. A second lever has a first end connected to an actuator and a circular slot located adjacent a second end. A second pivot pin secured to first and second side walls extends through the second lever to locate a ball in the circular slot adjacent to the plate in tangential engagement with the second side wall and in contact engagement with the first lever. An input force applied to the actuator causes

the first end of the second lever to pivot about the second pivot pin and move the second end and ball such that a force is applied to the first lever through the ball that laterally moves the second end of the first lever toward the first side wall as a function of the resiliency of the cantilevered beam such that the second plurality of teeth move out of mesh engagement with the first plurality of teeth and thereafter permit the first end of the housing to pivot about the first pivot pin to a desired alignment with respect to the seat. The first lever on termination of the input force resiliently returns the second plurality of teeth to meshing engagement with the first plurality of teeth to retain the first end of the housing in the desired alignment.